

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No. : 10/812,062 Confirmation No. 1313

Applicant : Barin Geoffry HASKELL et al.

Filed : March 30, 2004

Title : TARGET BITRATE ESTIMATOR, PICTURE ACTIVITY AND BUFFER MANAGEMENT IN RATE CONTROL FOR VIDEO CODER

TC/A.U. : 2621

Examiner : Anner N. HOLDER

Customer No. : 25693

**COMMUNICATION****MAIL STOP ISSUE FEE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In a telephone discussion with the Examiner on October 1, 2008, the Examiner agreed to file a second Examiner Amendment making clear the amendments set forth in Applicants' fax of June 18, 2008, which amendments were not included in the first Examiner Amendment mailed July 11, 2008.

As of today, October 14, 2008 – the day the issue fee is due – the second Examiner Amendment has not been received. This letter provides the text of claim 21 in its amended form as agreed to by Applicants and the Examiner:

21. A quantizer selection method, comprising:  
calculating a normalized average activity level of a picture from image information of the picture,  
adjusting a base quantizer value according to the picture's normalized average

activity level, and  
selecting a quantizer value for the picture based on the adjusted quantizer value,  
wherein the calculating comprises:

for a plurality of macroblocks in the picture, calculating variances  
of image data for a plurality of blocks therein,

from minimum variance levels of the macroblocks, calculating  
minimum activity levels of the macroblocks, wherein the minimum  
activity of each macroblock is calculated as:

$actmin = 1 + \min(blkvar1, blkvar2, blkvar3, blkvar4)$ , where blkvar  
represents the variances of 8x8 blocks within a respective macroblock, and

normalizing the minimum activity levels of the macroblocks,  
wherein the normalized minimum activity per macroblock is calculated as:

$$actnorm = \frac{(2 \times actmin) + actminavg}{actmin + (2 \times actmin8avg)}$$

where actminavg is a sum of actmin values for all macroblocks in a previously  
processed picture and the actnorm values for all macroblocks in the picture are  
averaged to obtain the normalized average activity level of the picture.

The Examiner is invited to contact the undersigned with any questions regarding the  
foregoing.

Respectfully submitted,  
KENYON & KENYON LLP

Dated: October 14, 2008

By: Justin Blanton/  
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